

**TITLE: A NETWORK SECURITY PLANNING
ARCHITECTURE**

Inventors: Richard Lippmann, et al.

Filed: December 11, 2003 MIS-00301

Agent: Anne E. Saturnelli Reg. No.: 41,290

Sheet 1 of 37

10

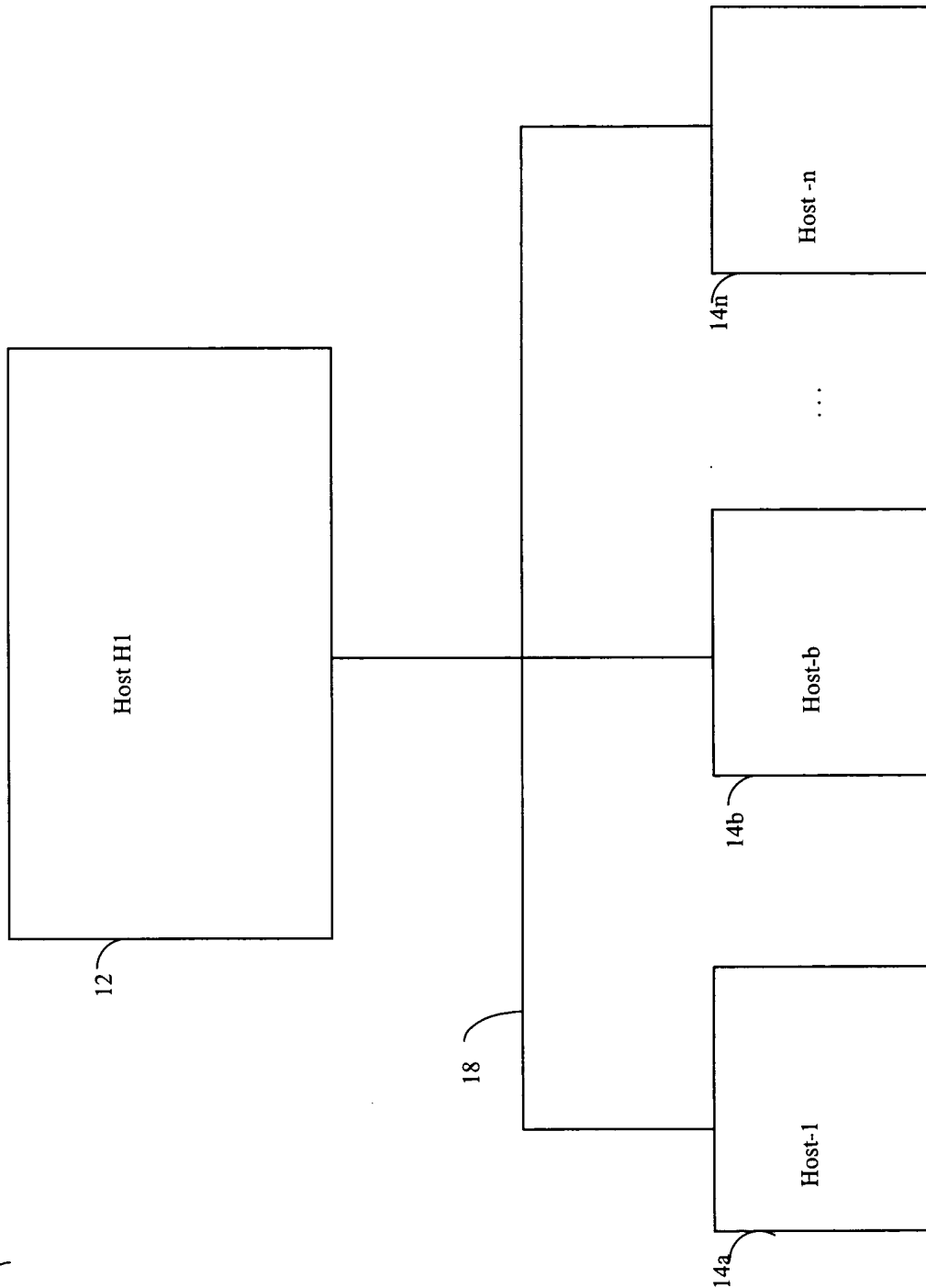


FIGURE 1

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Sheet 2 of 37

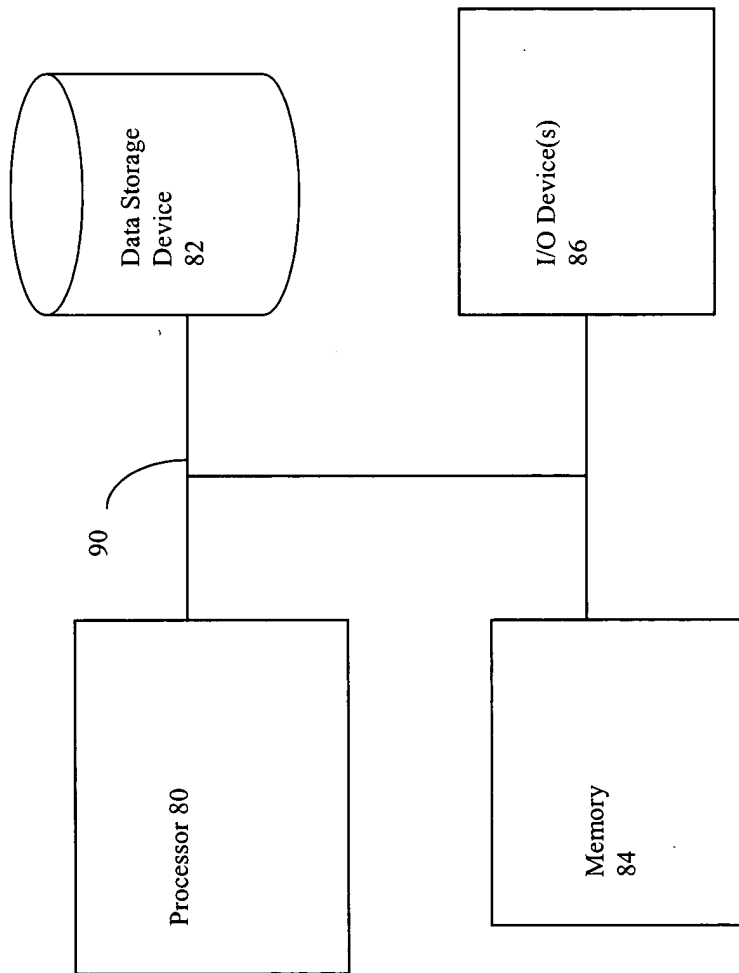


FIGURE 2

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MIS-00301

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Reg. No.: 41,290

Sheet 3 of 37

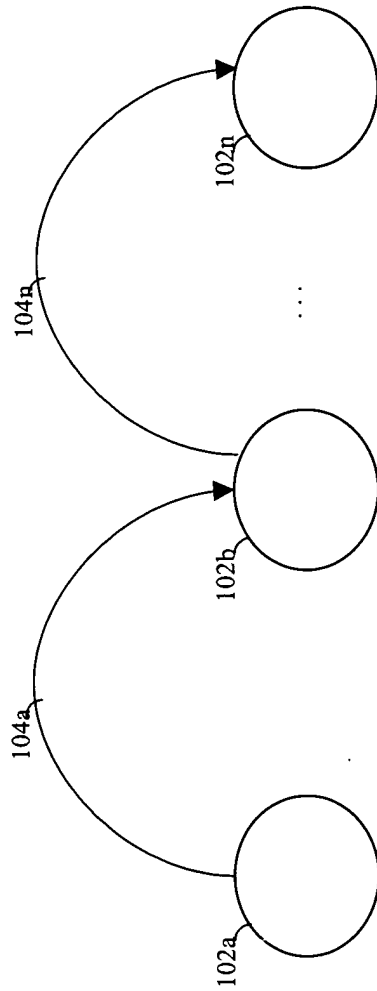


FIGURE 3



FIGURE 4

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MIS-00301

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Sheet 5 of 37

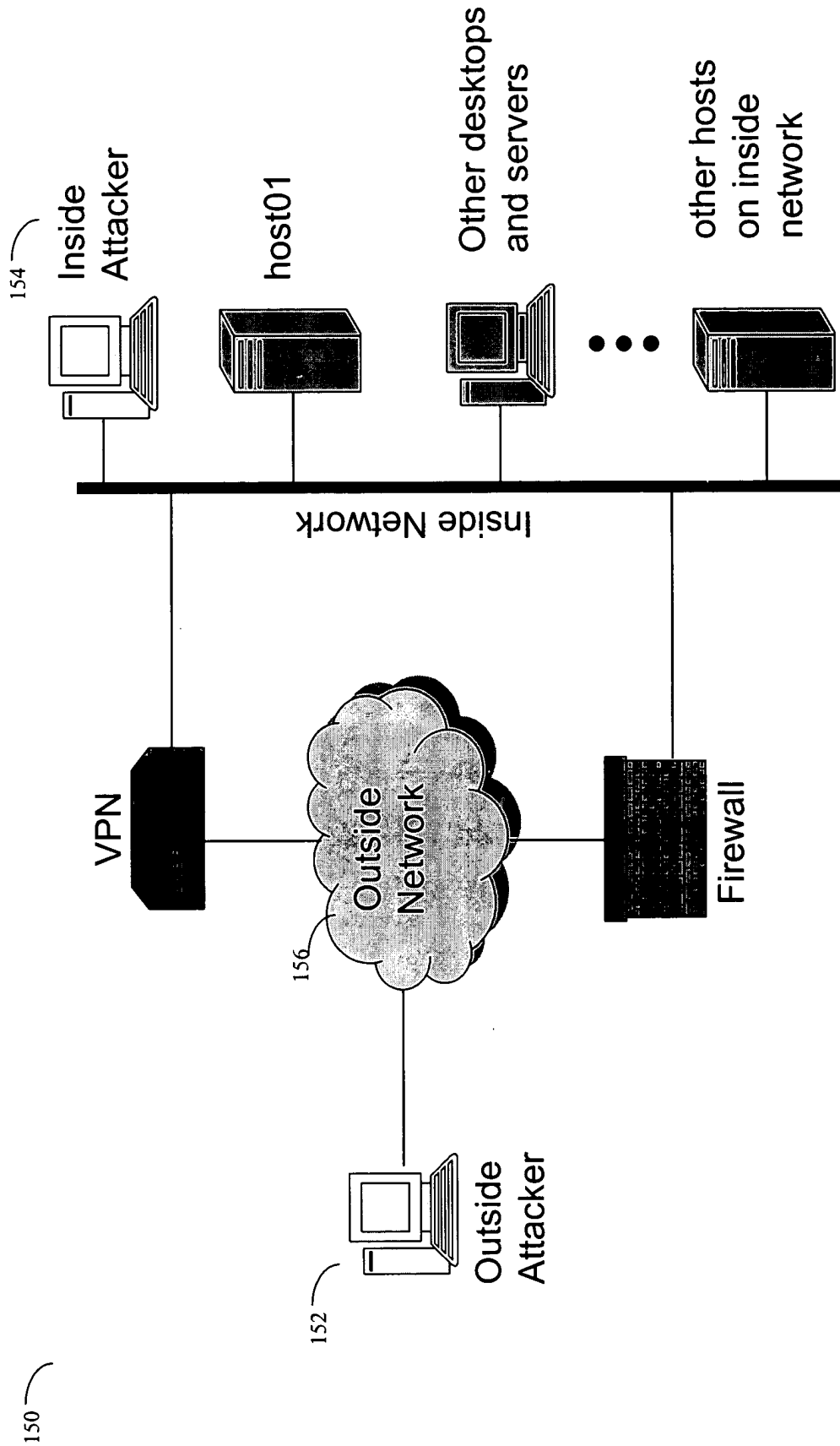


FIGURE 5

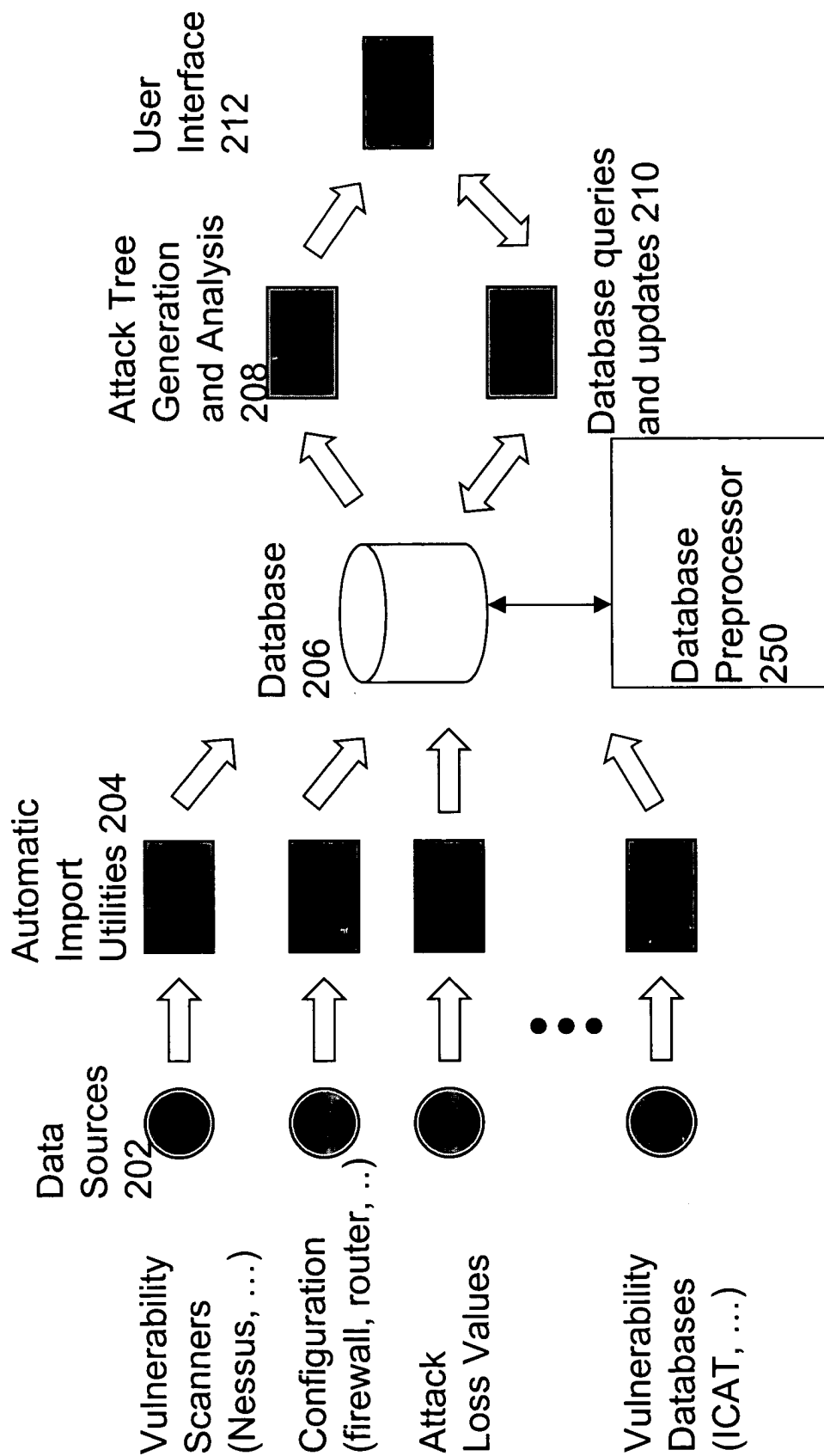


FIGURE 6

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MIS-00301

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Reg. No.: 41,290

Sheet 7 of 37

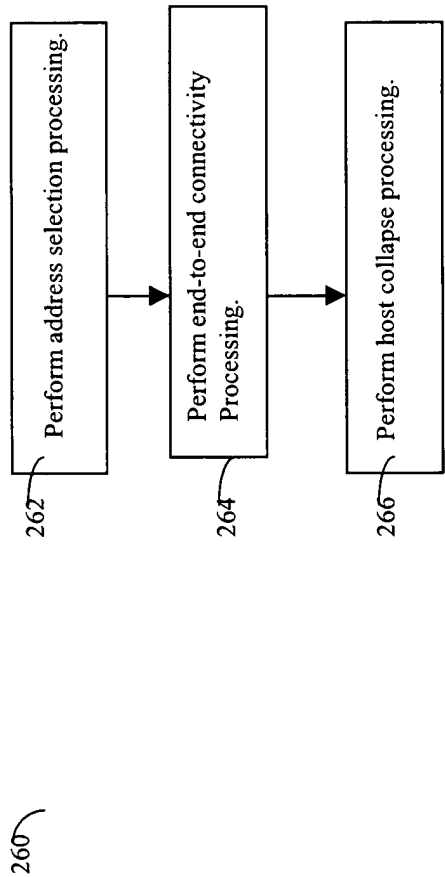


FIGURE 7A

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MIS-00301

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Reg. No.: 41,290

Sheet 8 of 37

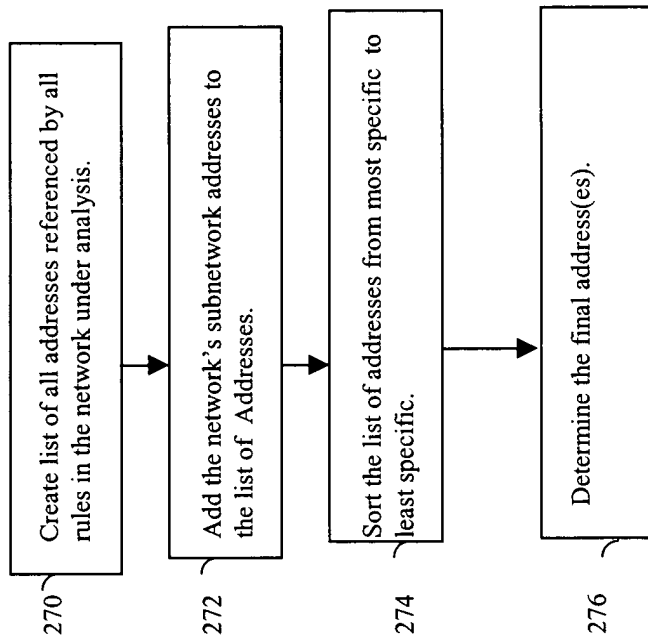


FIGURE 7B

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Reg. No.: 41,290

Sheet 9 of 37

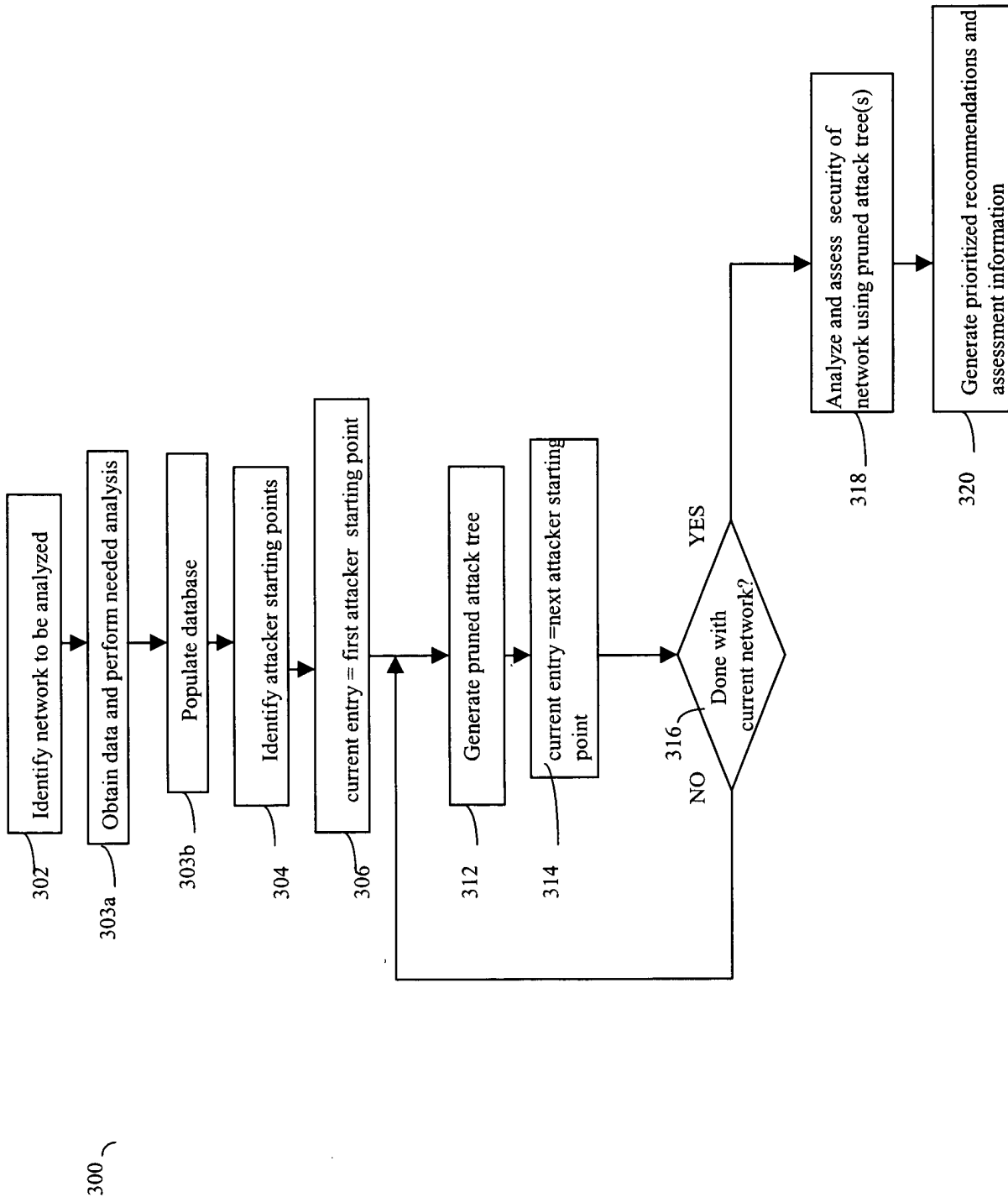


FIGURE 8

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MIS-00301

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Reg. No.: 41,290

Sheet 10 of 37

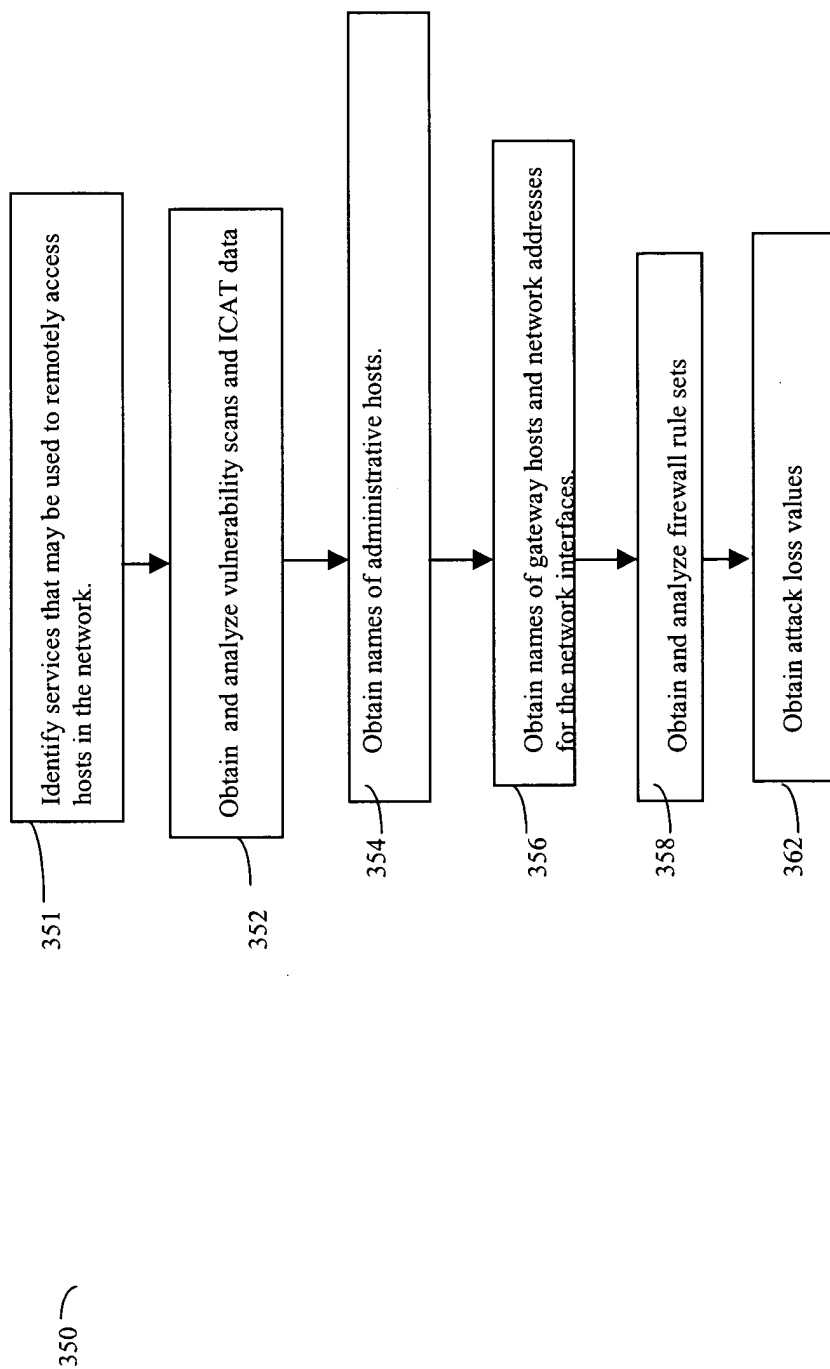


FIGURE 9A

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MIS-00301

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Reg. No.: 41,290

Sheet 11 of 37

372		374		376
	A	B	C	
1	host97	file server	5000	
2	host43	backup server	5000	
3	host01	DNS server	2000	
4	host56	domain controller	1000	
5	switch01	switch	400	

FIGURE 9B

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MIS-00301

Agent: Anne E. Saturnelli

Reg. No.: 41,290

Sheet 12 of 37

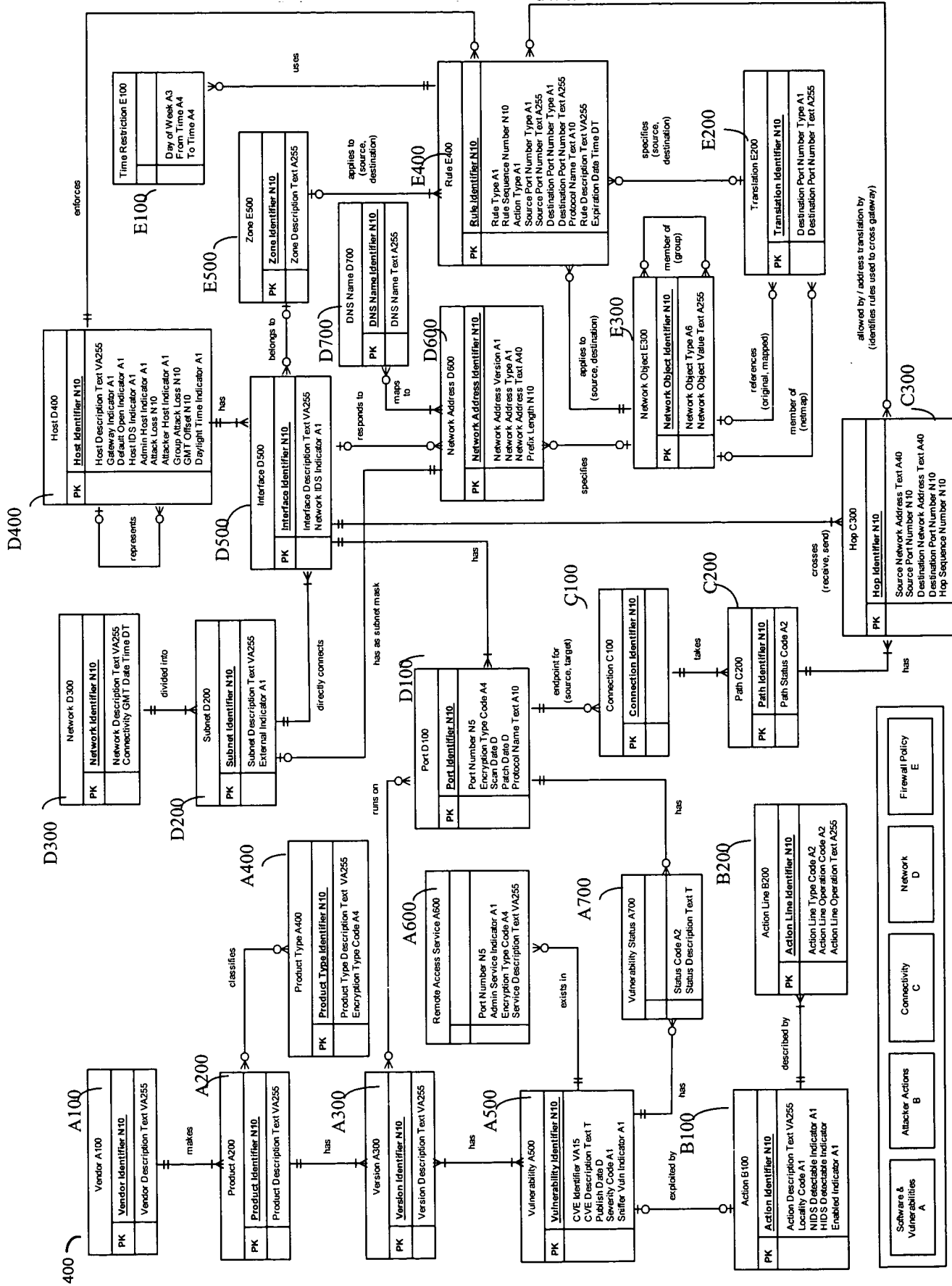


FIGURE 10

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MIS-00301

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Reg. No.: 41,290

Sheet 13 of 37

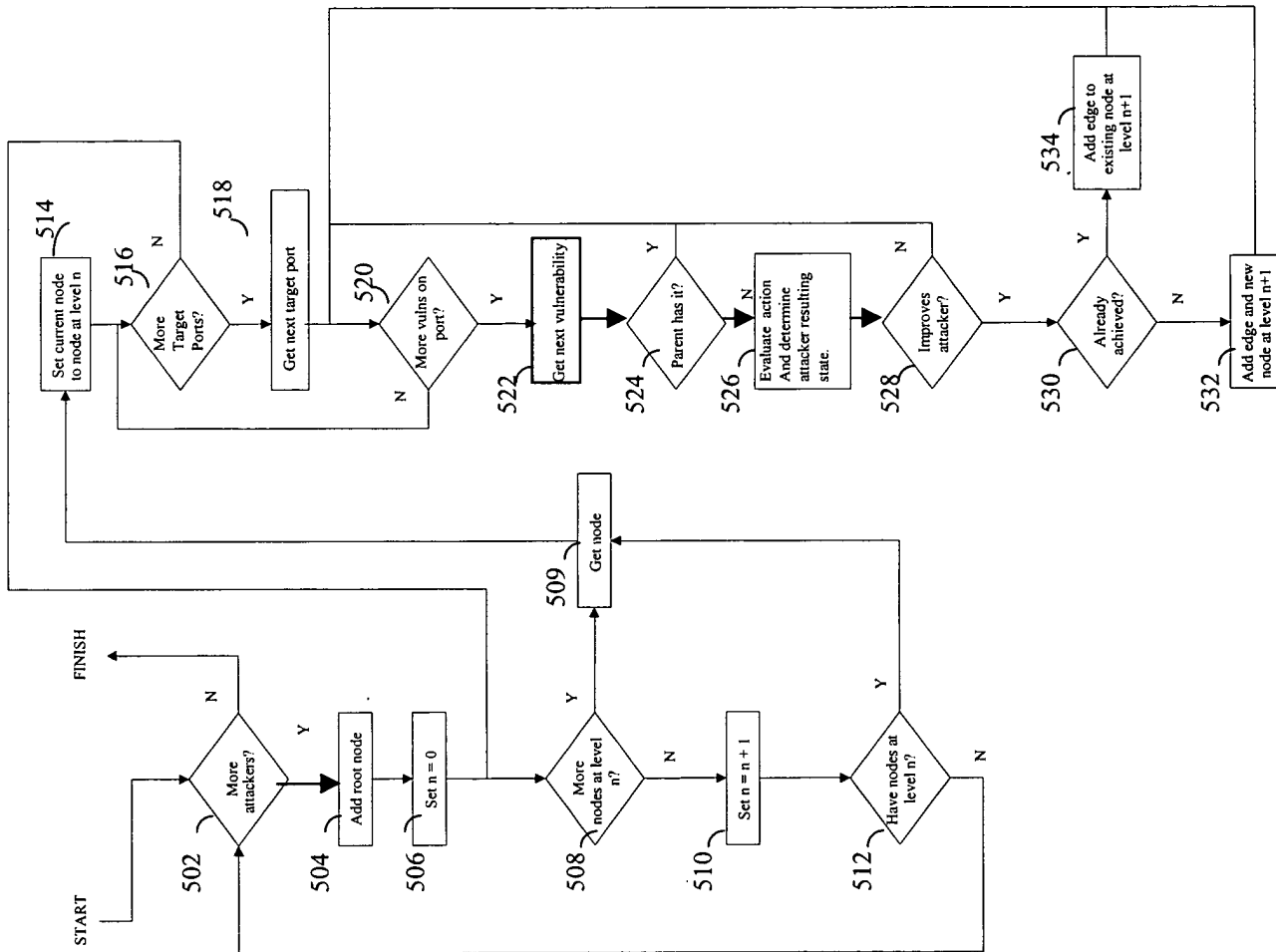


FIGURE 11

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Reg. No.: 41,290

Sheet 14 of 37

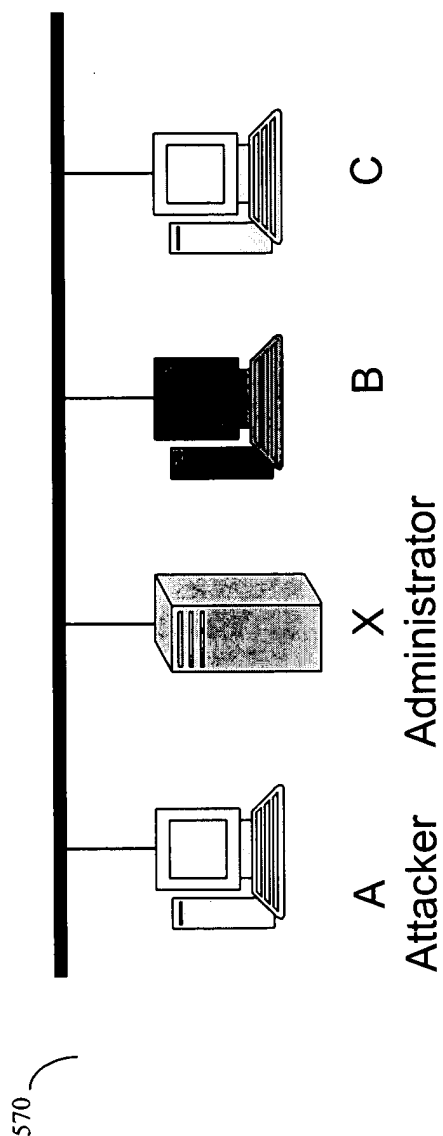


FIGURE 12A

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MIS-00301

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Reg. No.: 41,290

Sheet 15 of 37

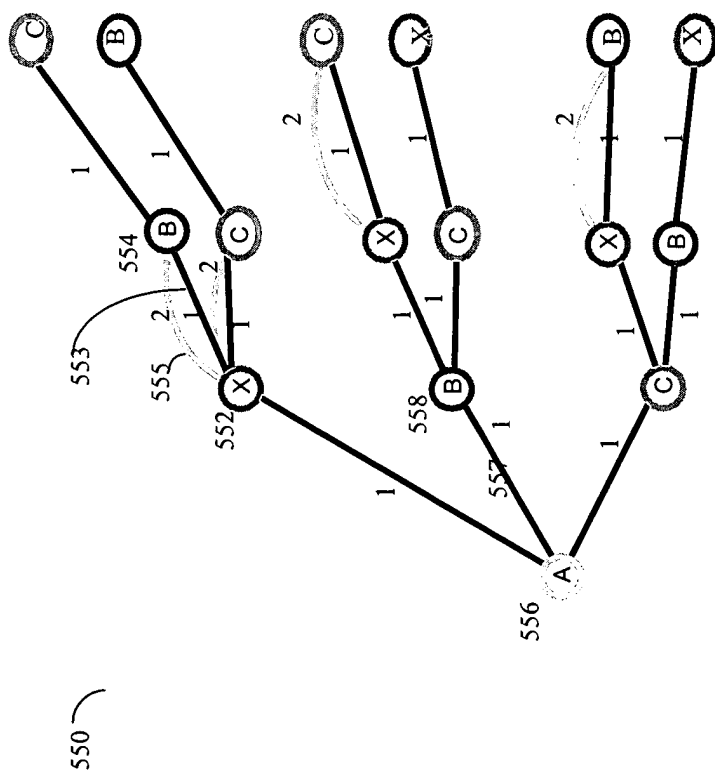


FIGURE 12B

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MIS-00301

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Reg. No.: 41,290

Sheet 16 of 37

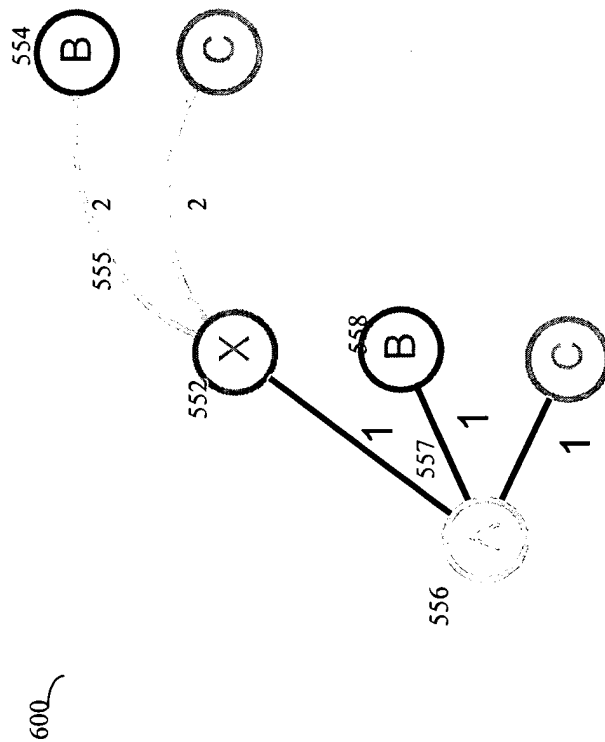


FIGURE 13

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Reg. No.: 41,290

Sheet 17 of 37

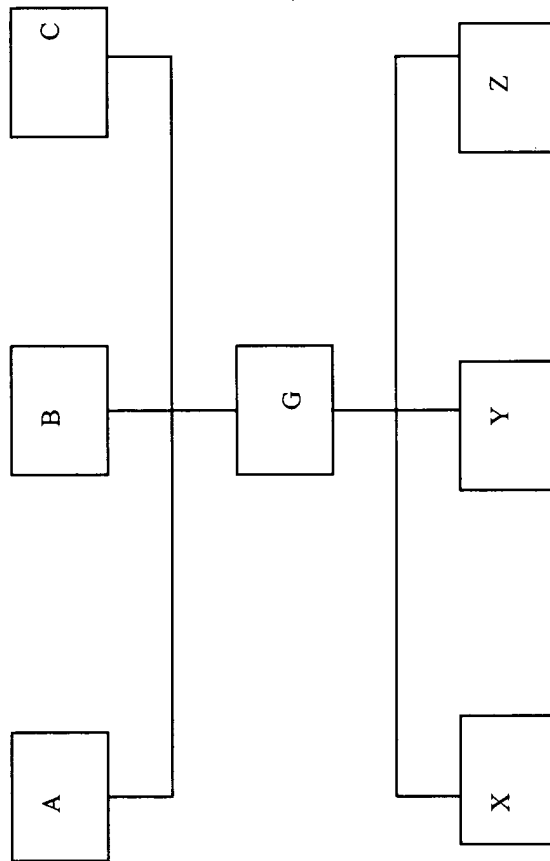


FIGURE 14

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Reg. No.: 41,290

Sheet 18 of 37

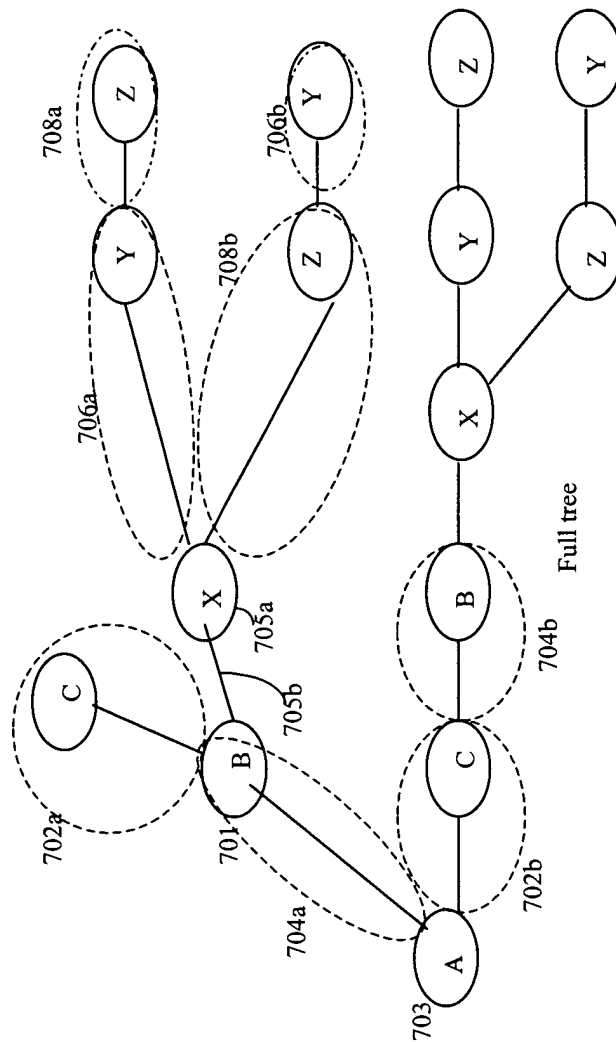


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MIS-00301

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Reg. No.: 41,290

Sheet 19 of 37

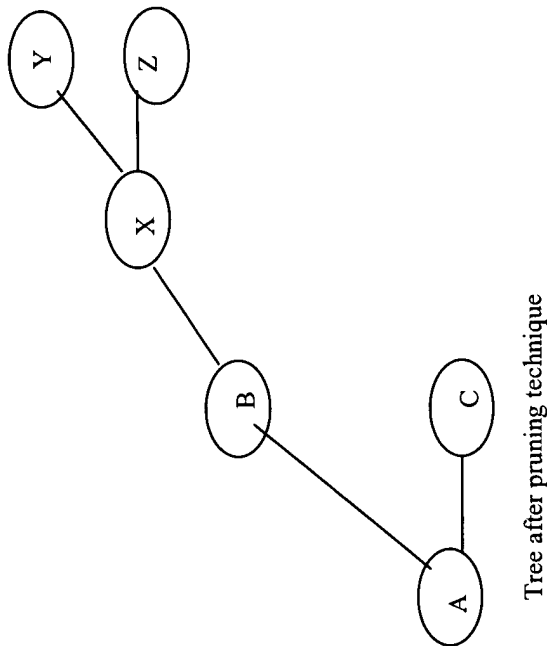
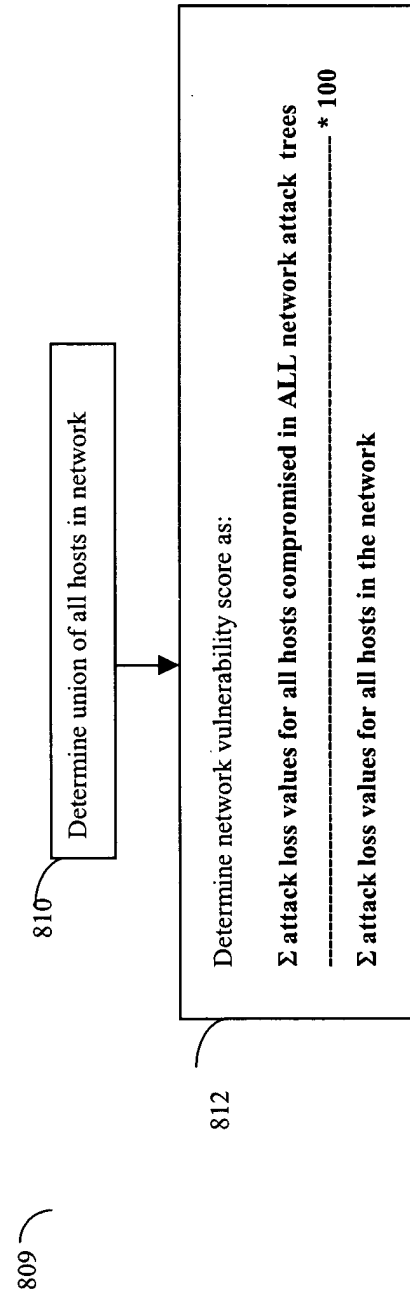
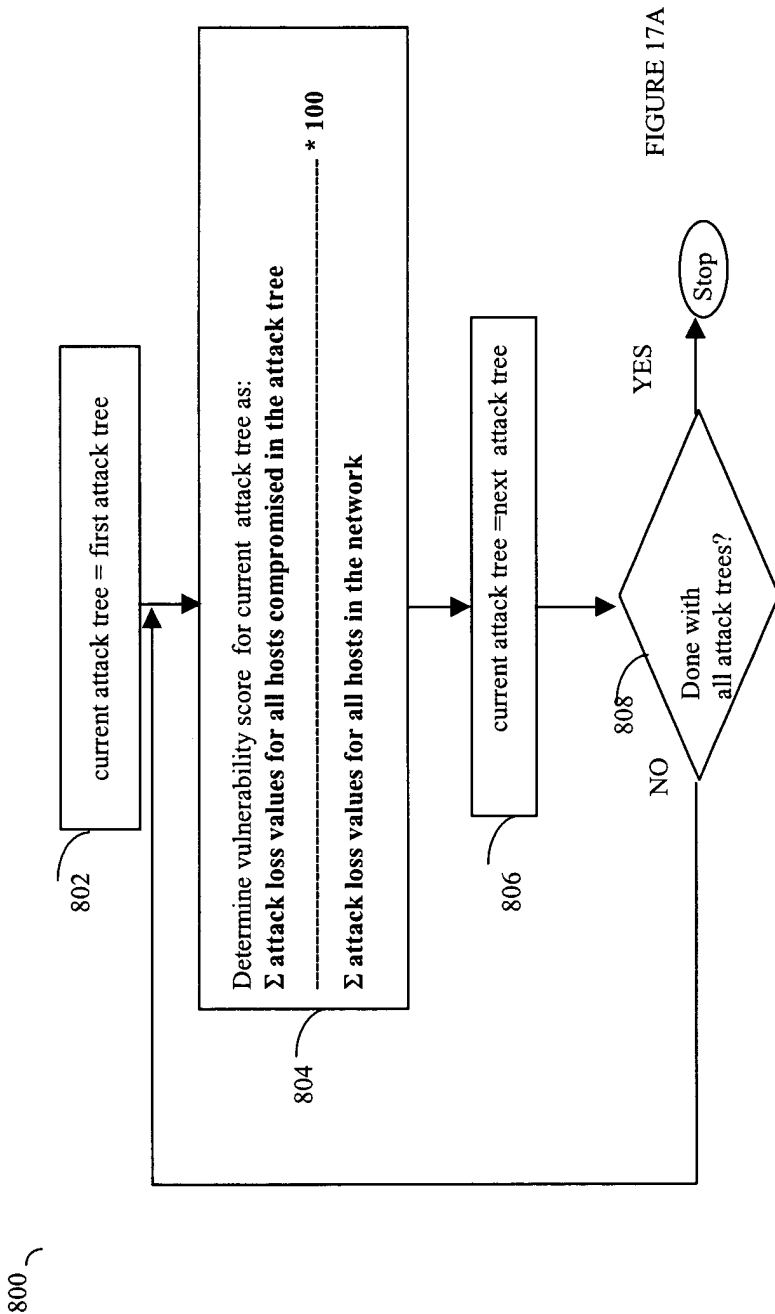


FIGURE 16



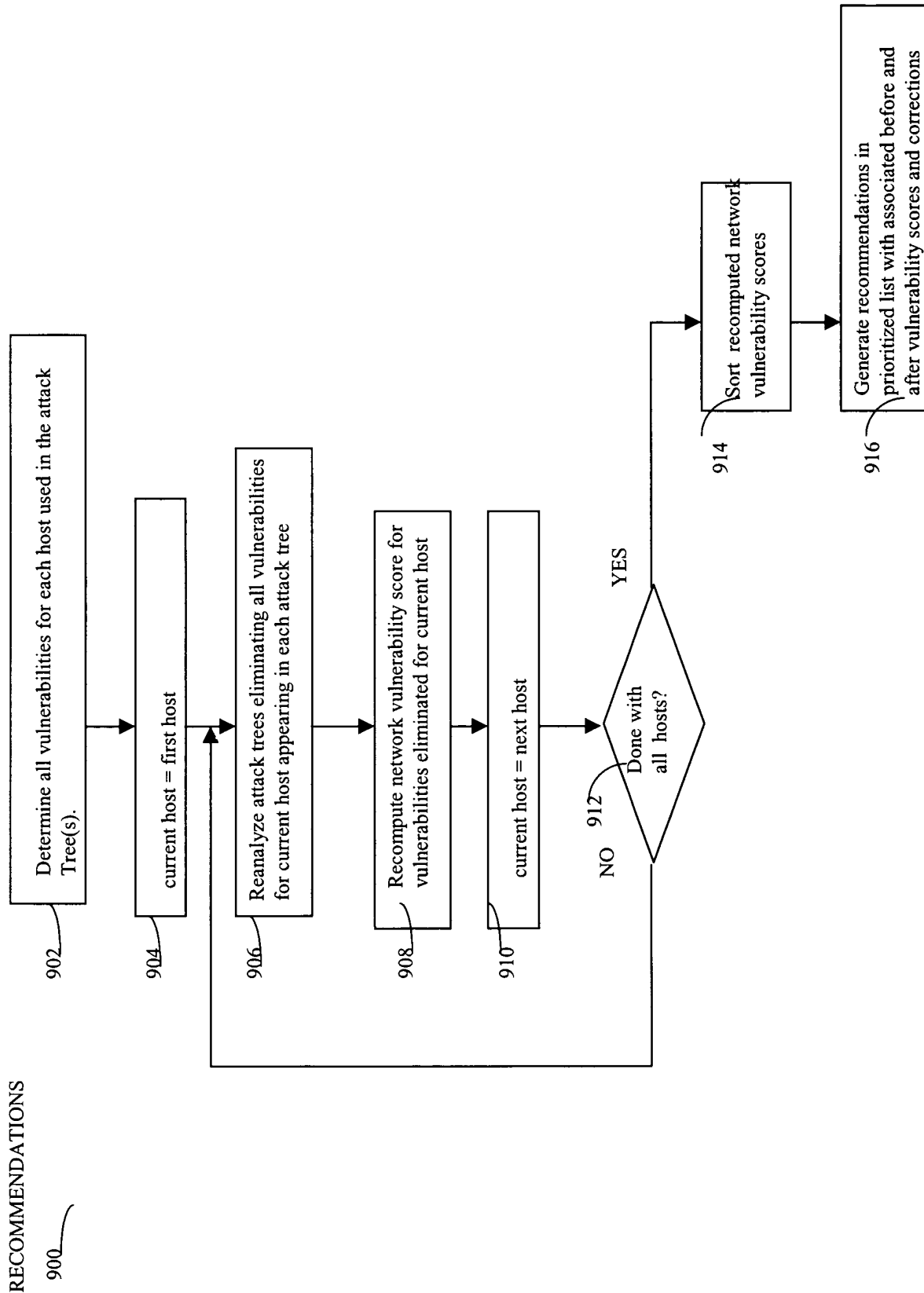


FIGURE 18

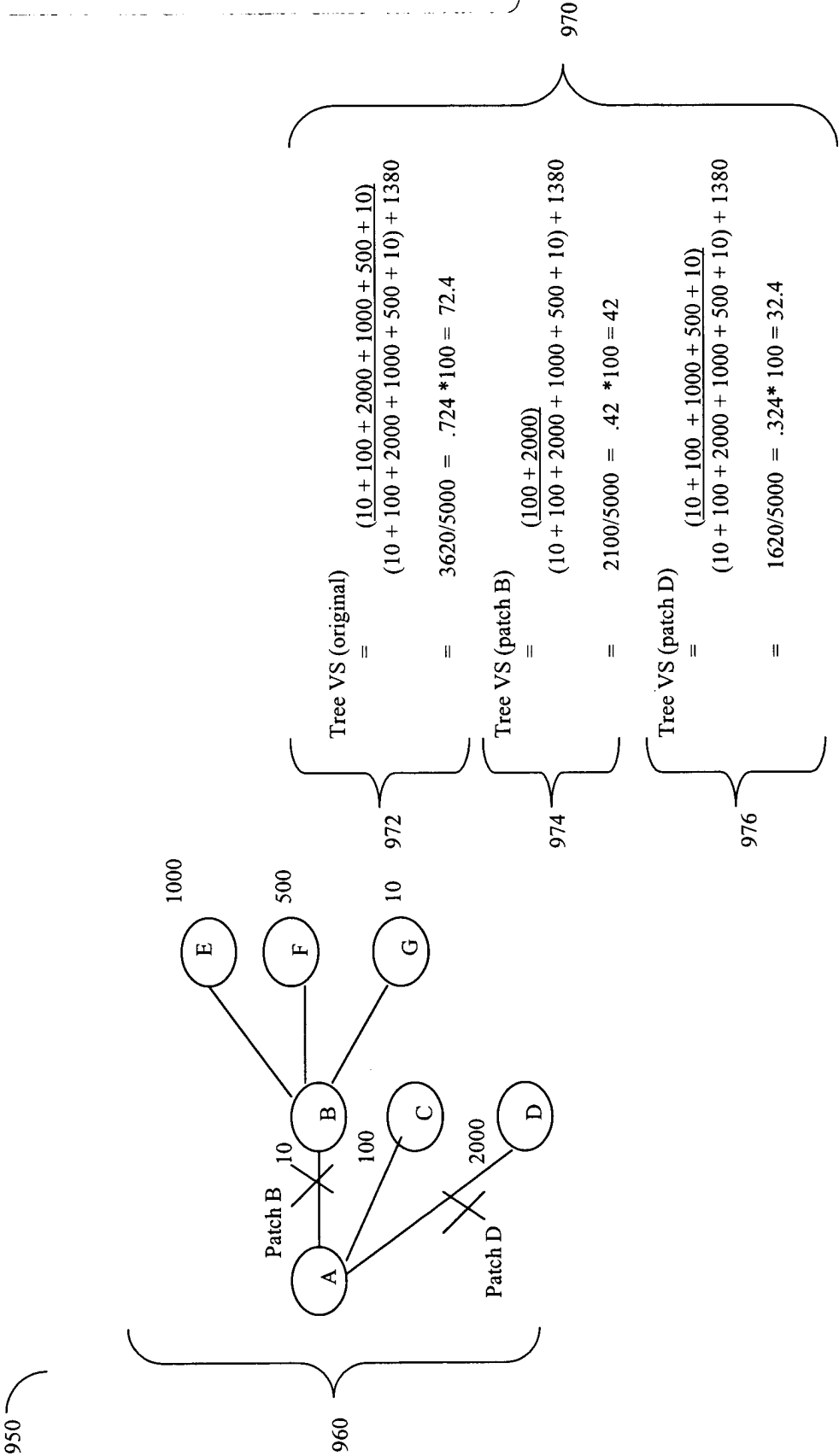


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MIS-00301

Agent: Anne E. Saturnelli

Reg. No.: 41,290

Sheet 23 of 37

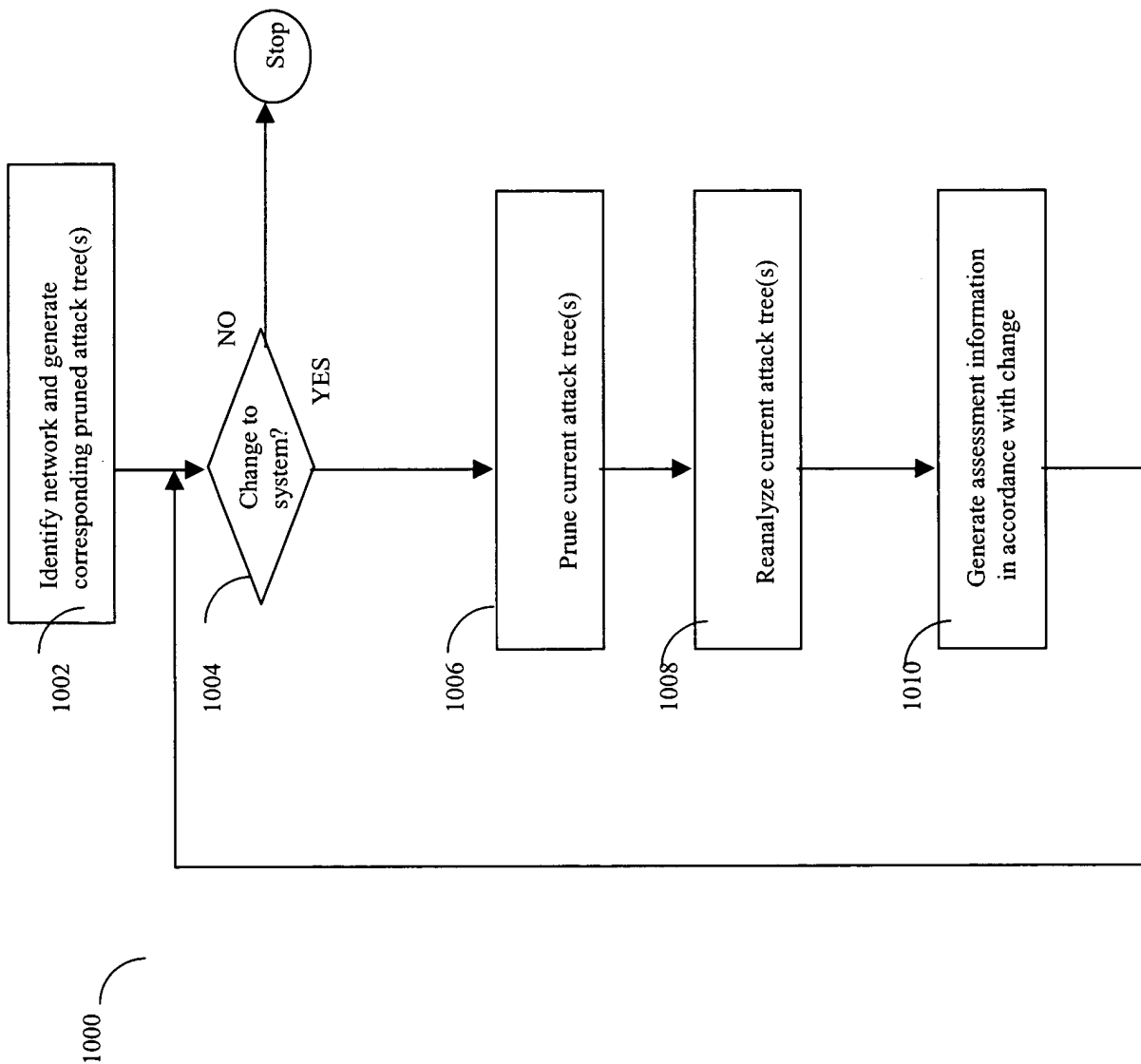


FIGURE 20

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MIS-00301

Agent: Anne E. Saturnelli

Reg. No.: 41,290

Sheet 24 of 37

1200

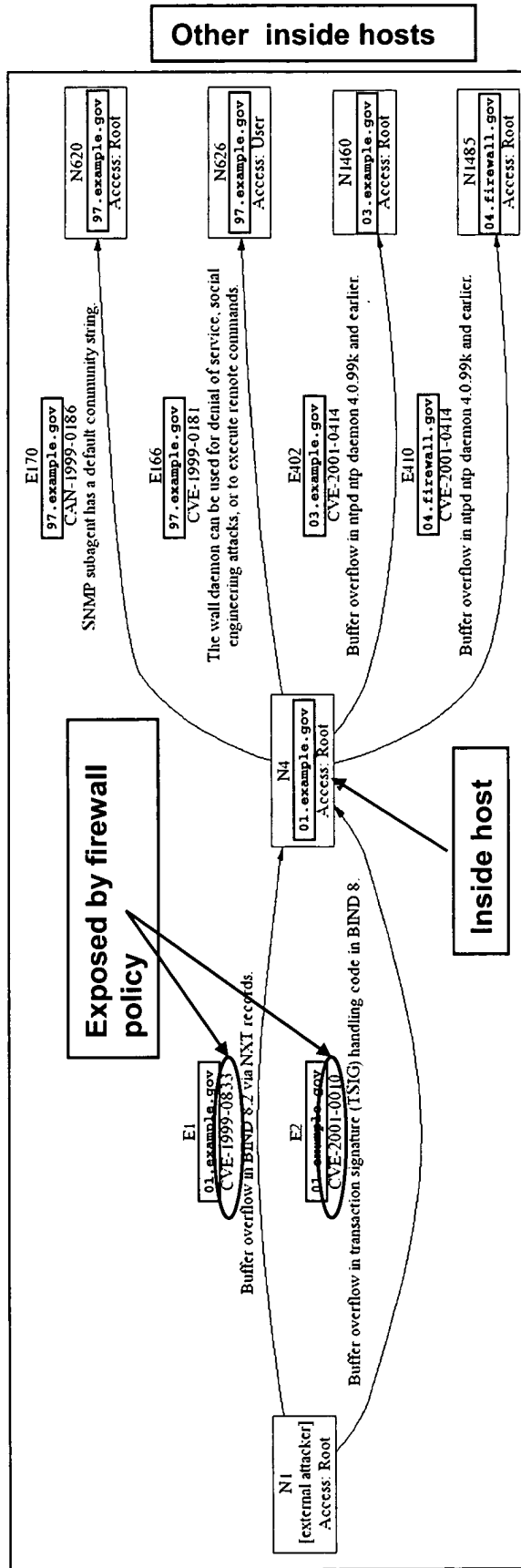


FIGURE 21A

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Filed: December 11, 2003 MIS-00301

Agent: Anne E. Saturnelli Reg. No.: 41,290

Sheet 25 of 37

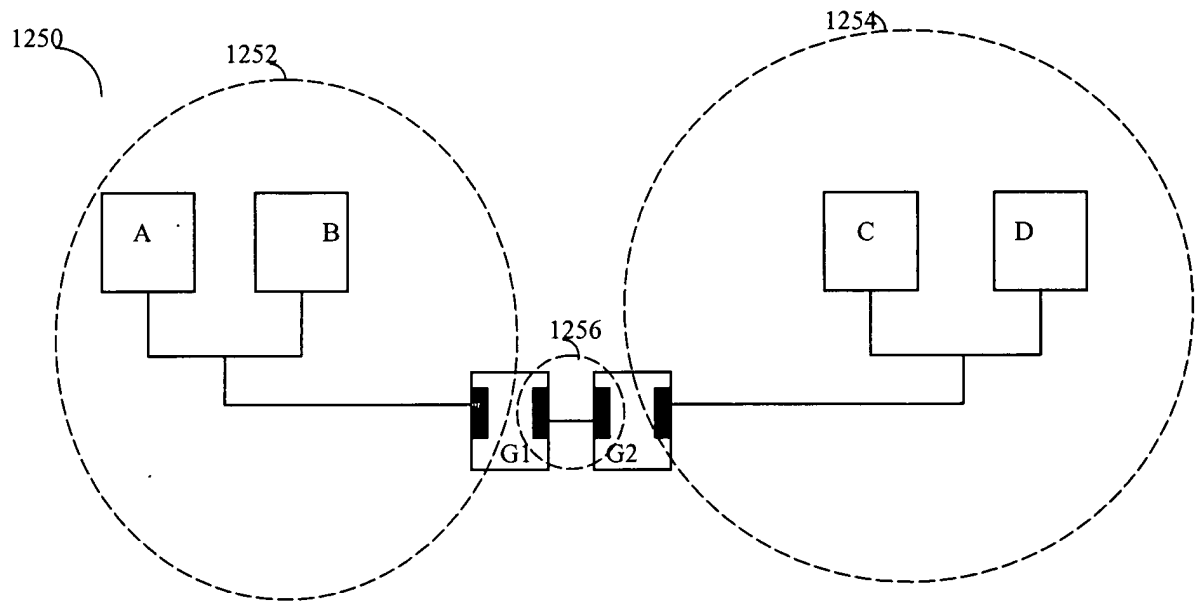


FIGURE 21B

Connectivity Search - Main Loop

1300

START

FINISH

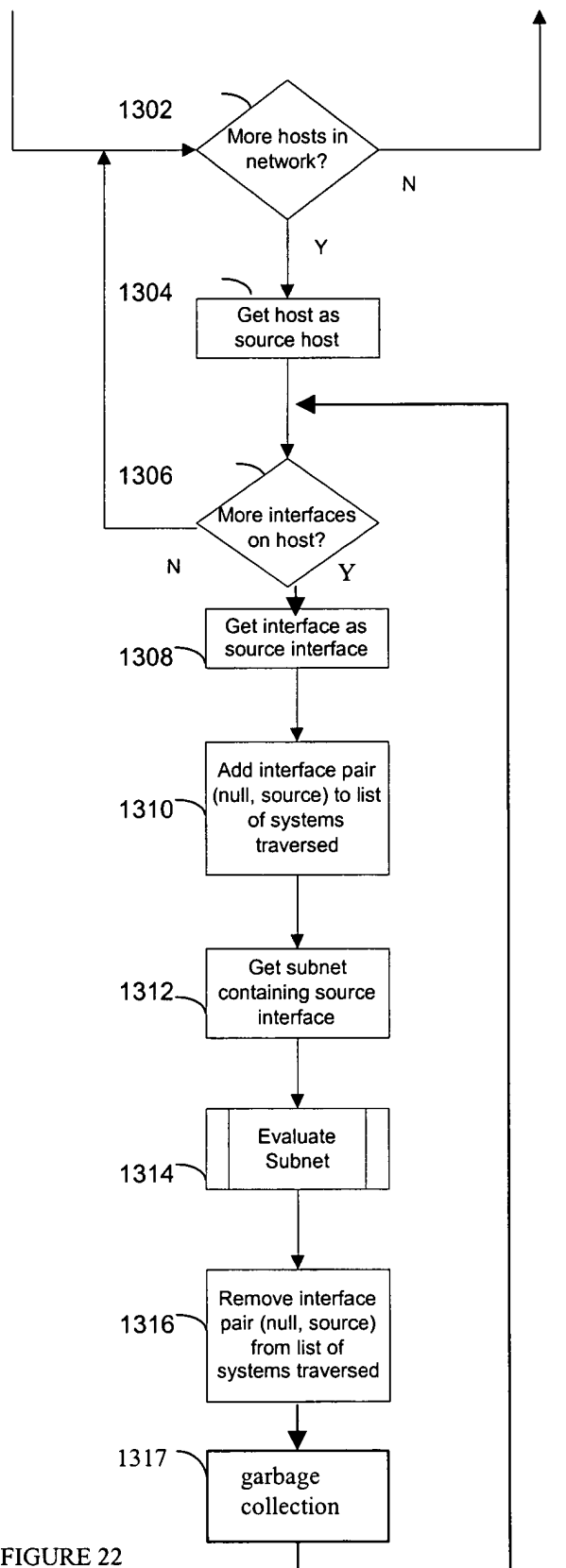


FIGURE 22

1314

Process: Evaluate Subnet

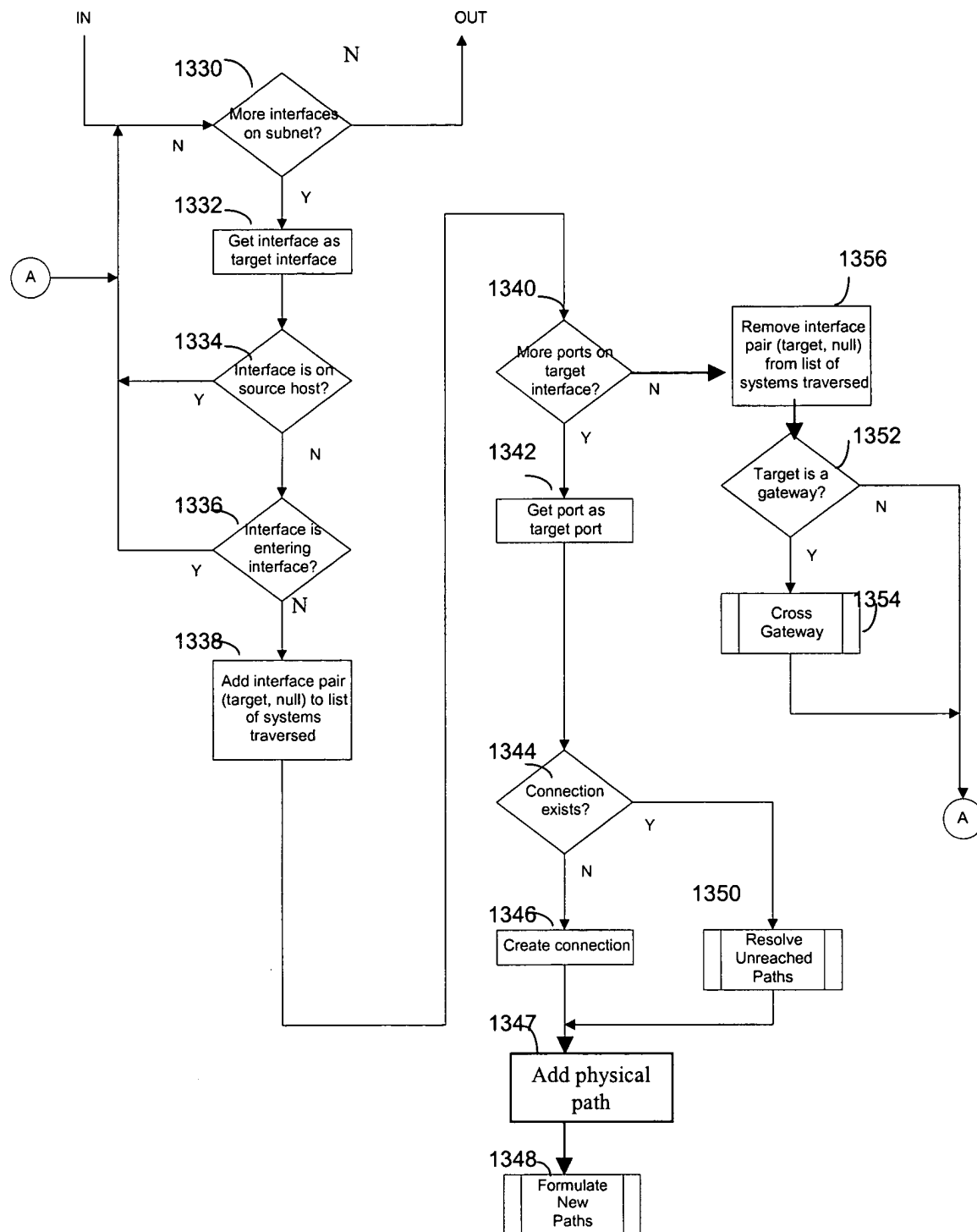


FIGURE 23

Process: Cross Gateway

1354

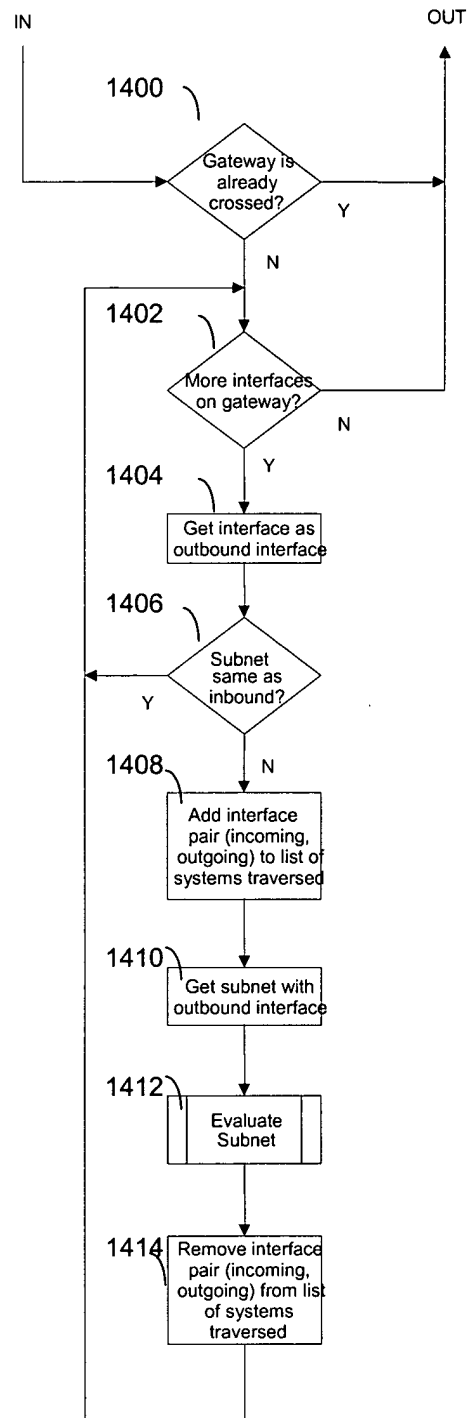


FIGURE 24

Process: Resolve Unreached Paths

1350

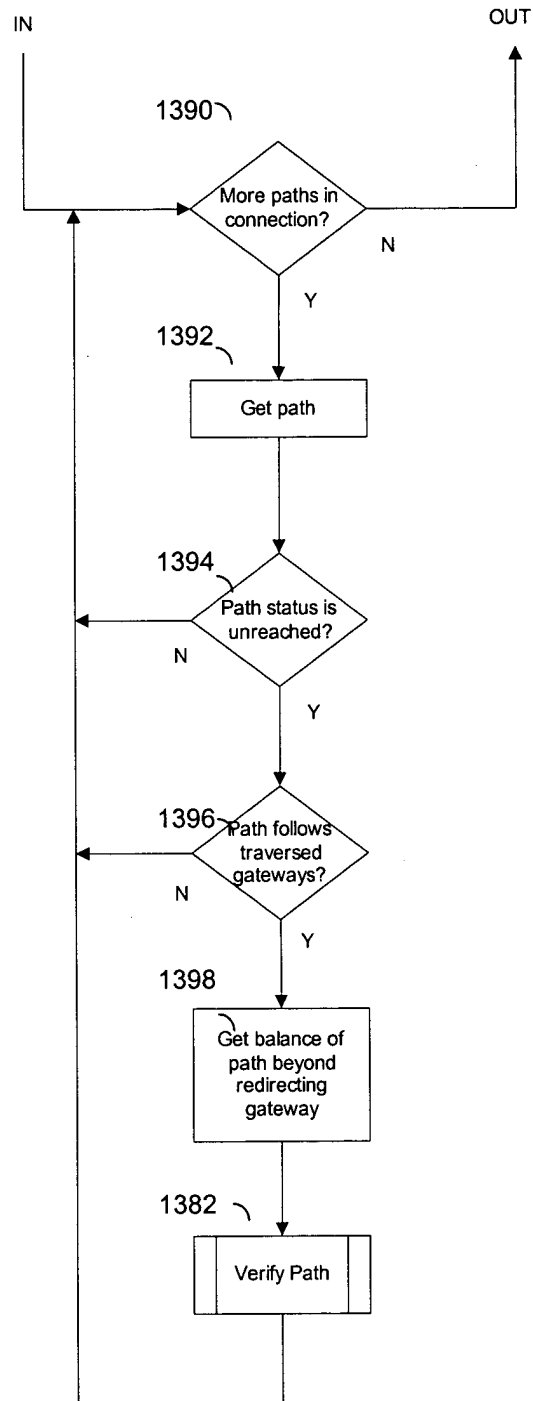


FIGURE 25

Process: Formulate New Paths

1348

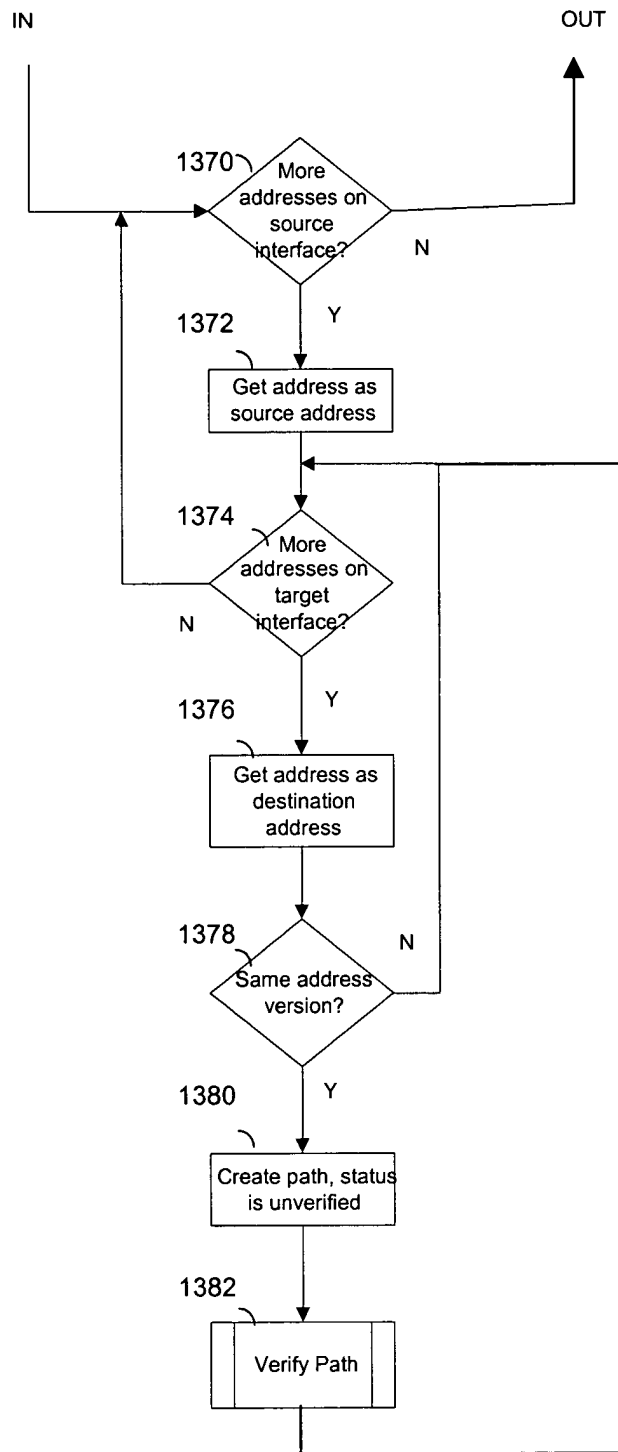


FIGURE 26

Process: Verify Path

1382

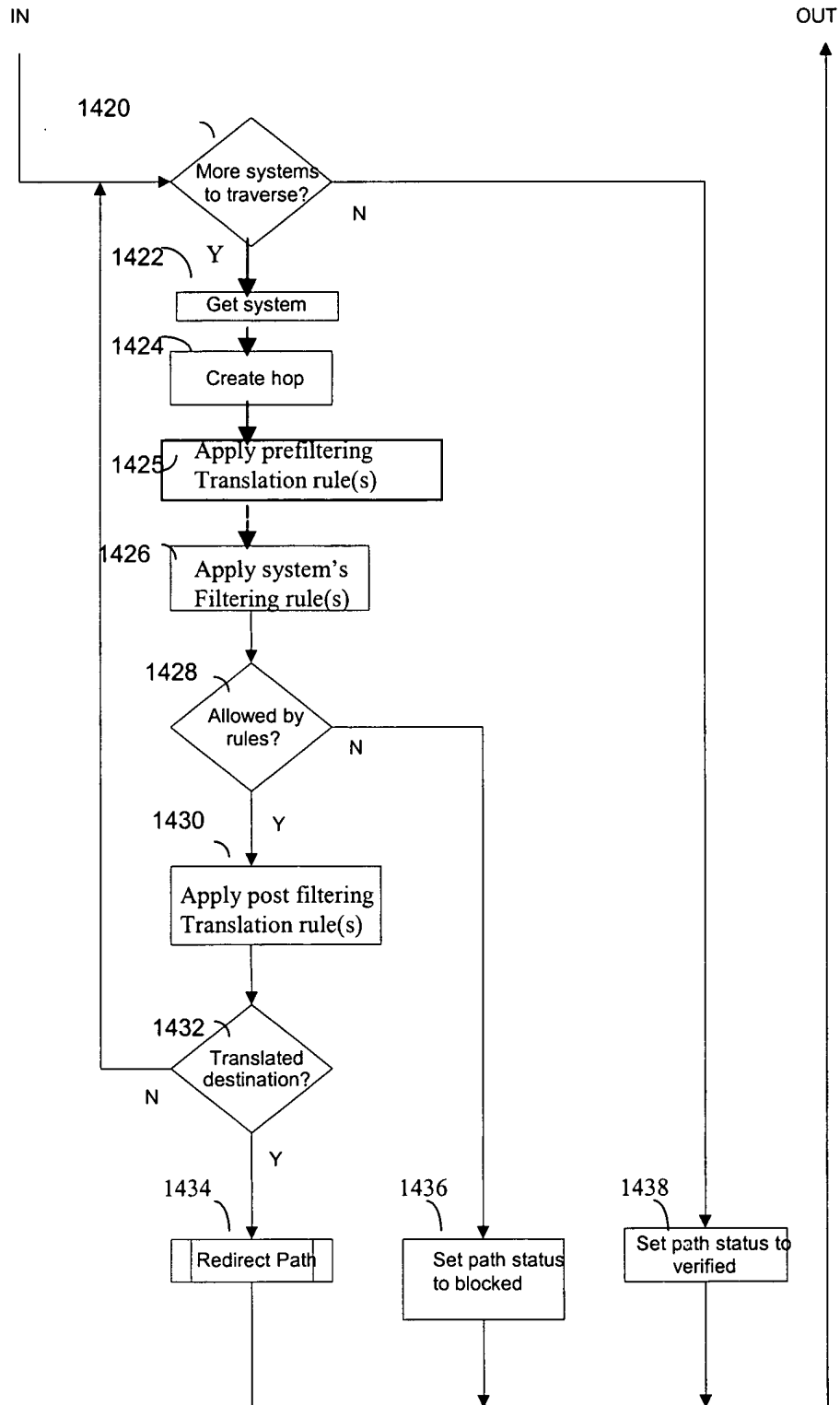


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Sheet 32 of 37

Process: Redirect Path

1434

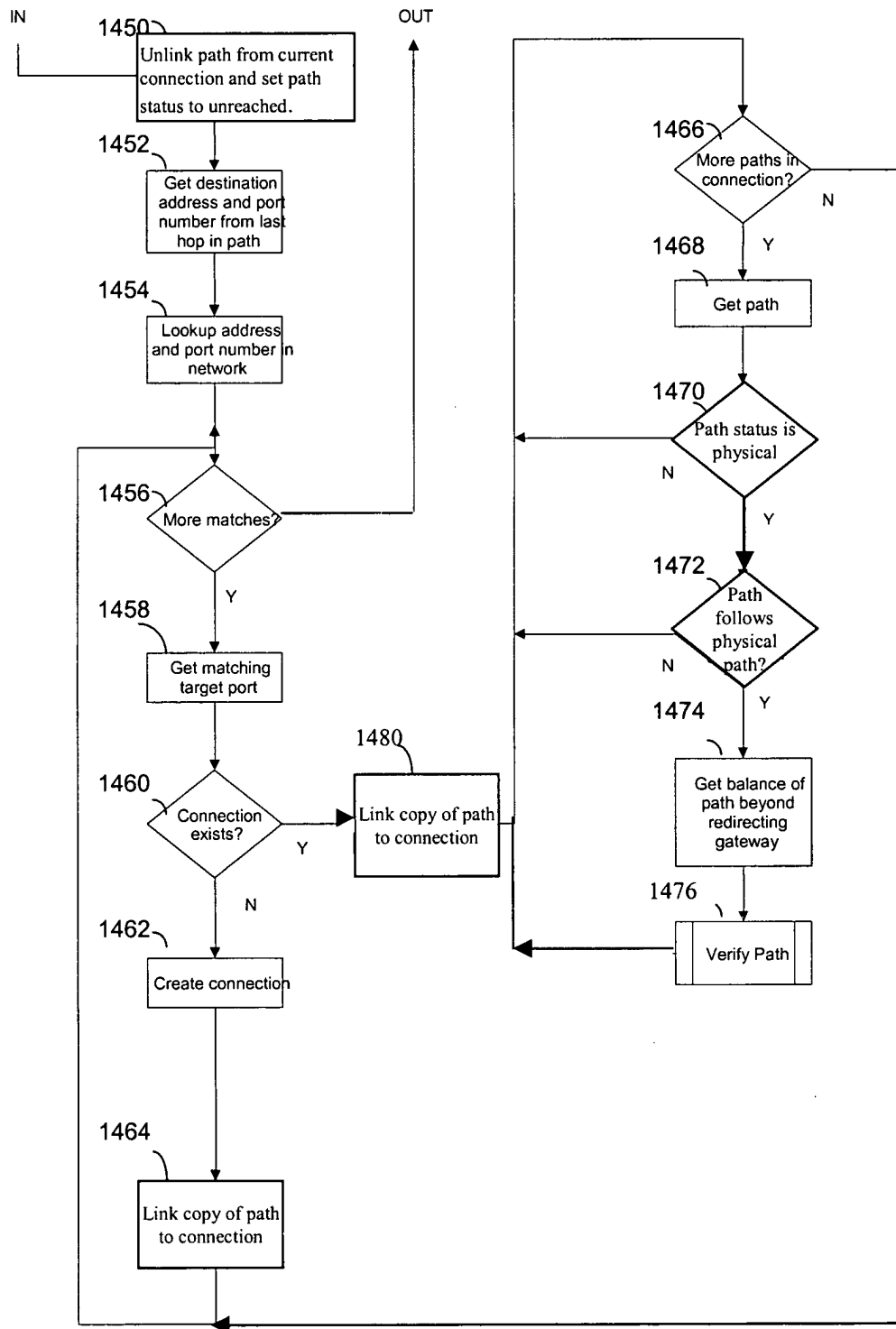
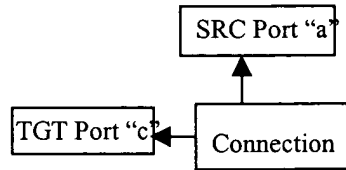


FIGURE 28

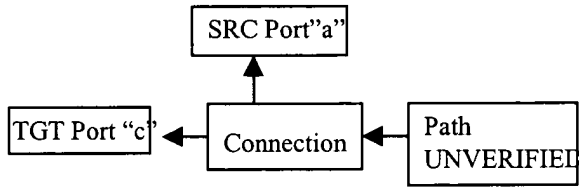
2000

List of systems traversed: A - G1 - G2 - C



2002

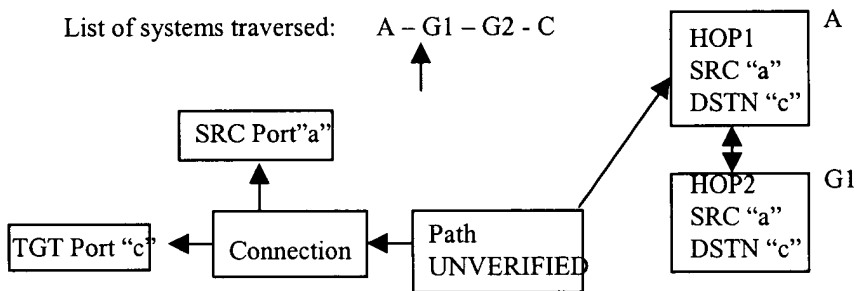
List of systems traversed: A - G1 - G2 - C



After step 1380

2004

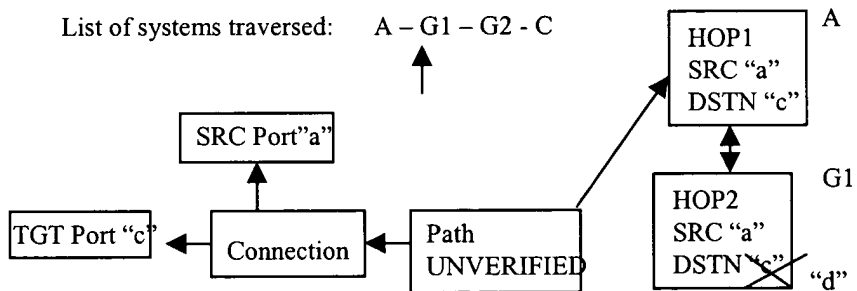
List of systems traversed: A - G1 - G2 - C



Before step 1430

2006

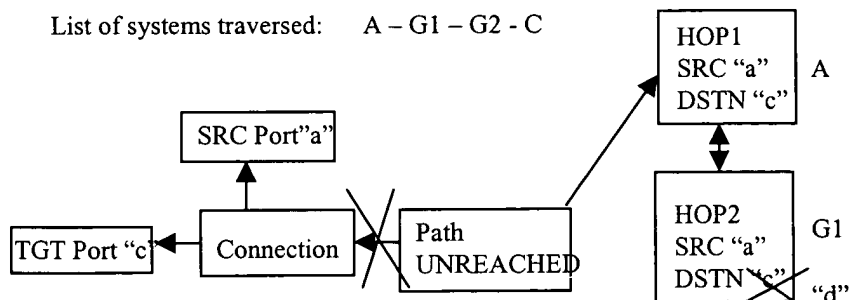
List of systems traversed: A - G1 - G2 - C



After step 1430

2008

List of systems traversed: A - G1 - G2 - C

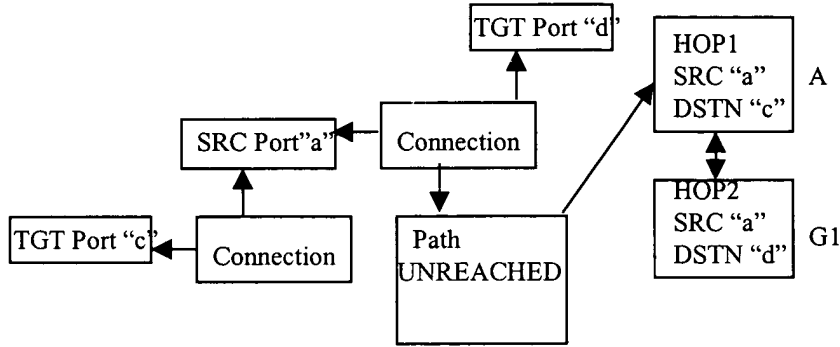


After step 1450

2010

FIGURE 29A

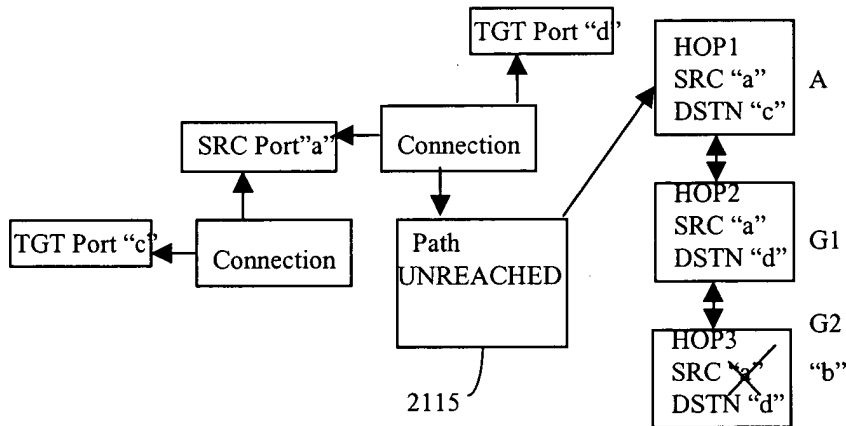
List of systems traversed: A - G1 - G2 - C



After step
1464

2112

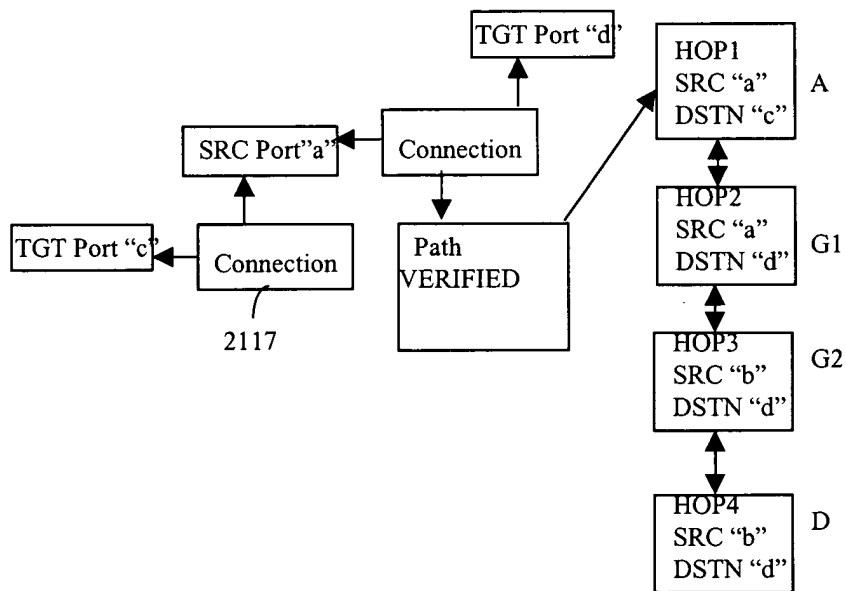
List of systems traversed: A - G1 - G2 - D



After step
1430

2114

List of systems traversed: A - G1 - G2 - D



After Verify
Path completes

2116

FIGURE 29B

End-to-End Connectivity Map - Logical Structures

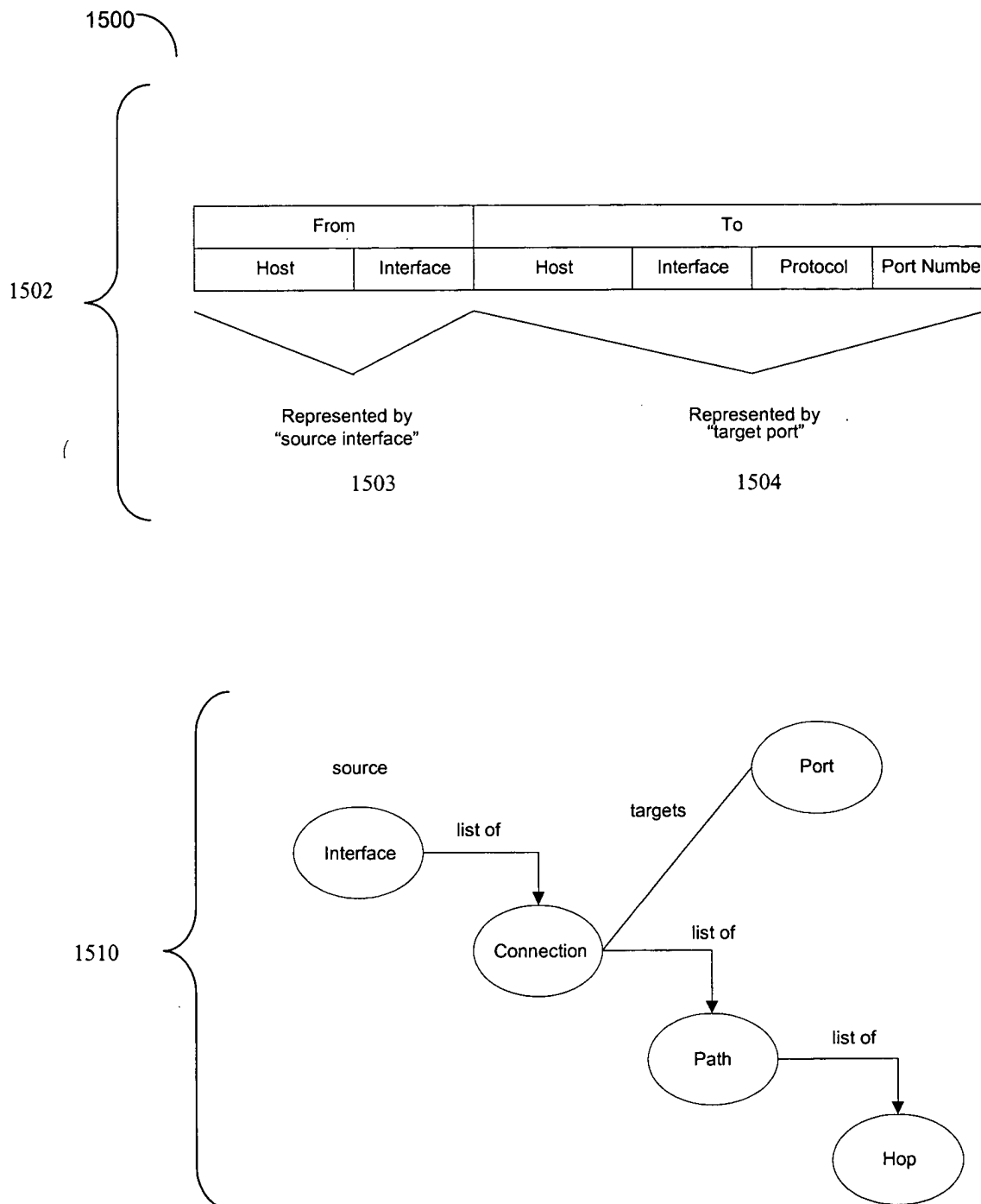


FIGURE 29C

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MIS-00301

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Reg. No.: 41,290

Sheet 36 of 37

2220

2222 Firewall rule no.	2224 Src	2226 Destination	2228 Service		2230 Action	2232 Times in Effect
			protocol	port #		
	:			:		:

FIGURE 29D

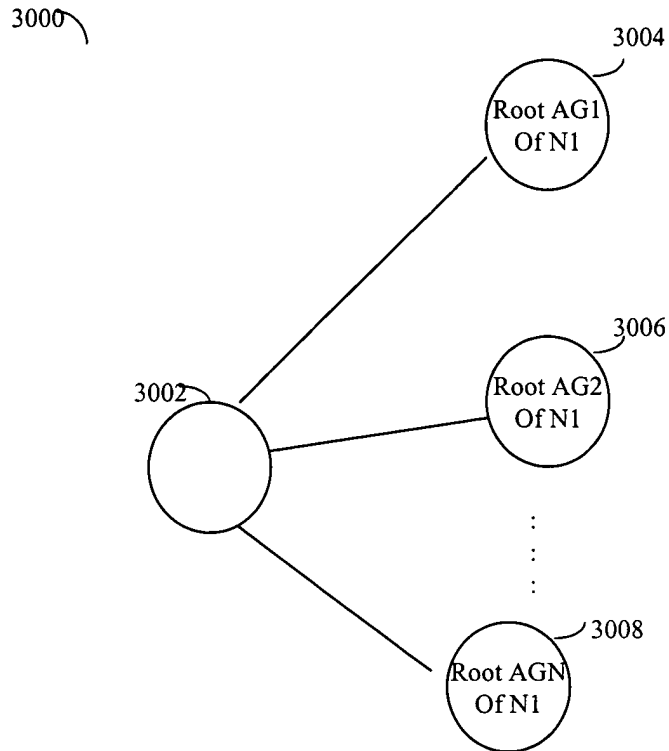


FIGURE 30